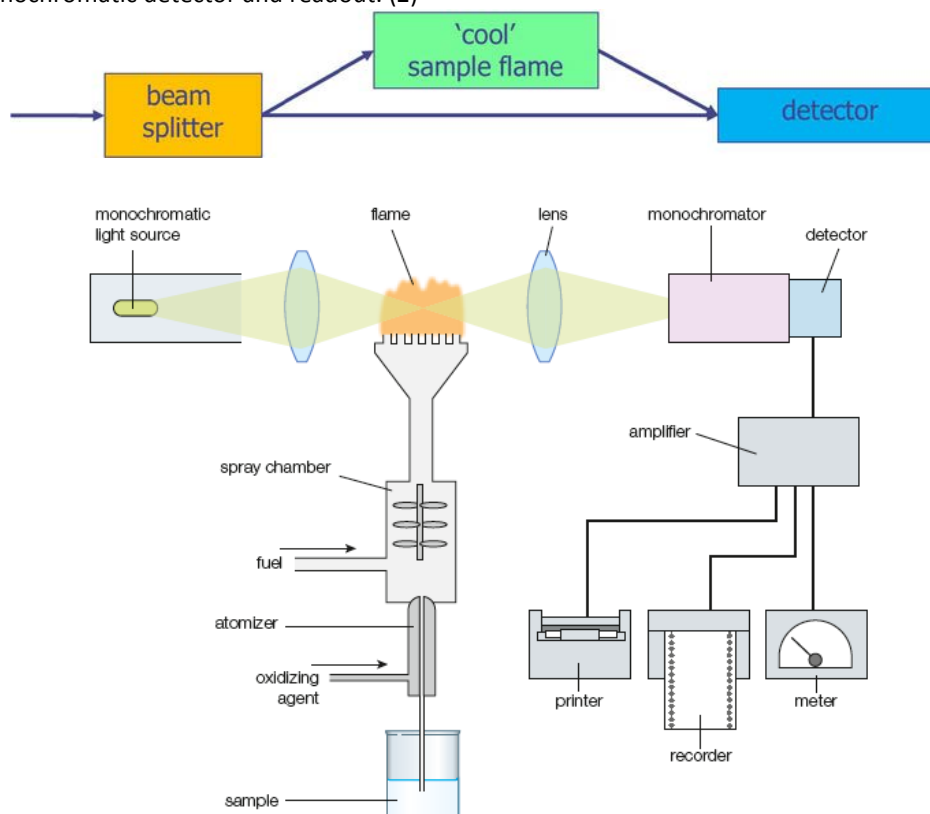


TAD05 – (A6 Notes) Atomic Absorption Spectroscopy

Name

1. A.6.1 State the uses of AA spectroscopy. (1) **Aim 8:** Include uses such as the identification of metals in water, blood, soils and foods.
 - a.
 - b.
 - c.
 - d.
 - e.
 - f.
2. A.6.2 Describe the principles of atomic absorption. (2)
 - a. How are atomic absorption and atomic emission related?
 - b. Briefly describe how atomic emission is used:
 - c. How is atomic absorption different?
3. A.6.3 Describe the use of each of the following components of the AA spectrophotometer: fuel, atomizer, monochromatic light source, monochromatic detector and readout. (2)



a. Atomizer (flame atomization):

b. Monochromatic Light Source:

c. Monochromator detector:

4. A.6.4 Determine the concentration of a solution from a calibration curve. (3) **Aim 7:** Details about the instruments used can be found on the Internet.

a. What is a calibration curve? Where have you seen this before?

b. How can a calibration curve be read? When the blood plasma samples for two individuals (subject A and subject B) is processed using AAS 589 nm (diagnostic peak for Na^+ concentration) the intensity peaks at the detector are 10^2 and 10^4 respectively. What are the concentrations for each of the two subjects?

